

CLAIMS

1 1. A lockout valve comprising:
2 a valve body having a housing with an inlet conduit at one end of a
3 central chamber and an outlet conduit at an other end of said central chamber,
4 such that said inlet conduit, central chamber and outlet conduit form a
5 continuous passageway, and a valve slide channel extending transversely
6 therethrough said housing between an upper opening in an upper end of said
7 housing and a lower opening in a lower end of said housing;
8 a slide mechanism slidingly disposed in said valve slide channel to
9 operatively control fluid flow through said passageway between an open
10 position, an intermediate position and a closed position, wherein said slide
11 mechanism is generally planar and includes an upper end and a lower end each
12 having a radially extending flange and two side edges extending therebetween
13 said upper end and said lower end, and having a front side facing toward said
14 inlet conduit and a back side facing toward said outlet conduit, and a plurality
15 of flow apertures extending therethrough said slide mechanism and arranged in
16 a predetermined pattern to restrict flow through said passageway in an
17 intermediate position;
18 wherein said front side of said slide mechanism includes a detent slot
19 having a predetermined length, width and depth, and said back side of said
20 slide mechanism includes a longitudinally extending override slot having an
21 upper portion with a first predetermined length, width and depth positioned
22 opposite said detent slot to form a continuous opening through said slide

23 mechanism, and having a lower portion with a second predetermined length,
24 width and depth extending partially therethrough said slide mechanism; and
25 a detent mechanism for overriding the intermediate position of said
26 slide mechanism including a detent override lever partially disposed in said
27 housing with a finger member extending from an edge of said detent override
28 lever within said housing, a spring member located in a recess in said housing
29 and a ball member located in the housing recess, such that the ball member is
30 positioned between the spring and the detent override lever, wherein said ball is
31 located in an upper portion of said detent slot when said slide mechanism is in
32 a closed position and travels through said detent slot concurrent with said slide
33 mechanism sliding through the valve slide channel until said ball reaches a
34 bottom edge of the detent slot and actuation of said detent override lever
35 engages said override finger within the lower end of said override slot to push
36 said ball into the recessed area of said housing so that said slide mechanism
37 bypasses the intermediate position.

1 2. The lockout valve of claim 1 wherein said inlet conduit and said
2 outlet conduit each include a connecting means disposed on an outer end.

1 3. The lockout valve of claim 1 wherein said inlet conduit and said
2 outlet conduit each include a sealing means operatively disposed on an inner
3 end, respectively.

1 4. The lockout valve of claim 3 wherein said sealing means is an
2 o-ring disposed in an annular channel formed in an inside surface of said
3 housing about an inner end of said inlet conduit and an o-ring disposed in an
4 annular channel formed in an inside surface of said housing about an inner end
5 of said outlet conduit.

1 5. The lockout valve of claim 1 wherein said slide mechanism
2 includes indicia on a front side or a back side of said slide mechanism
3 indicating either one of an open position or a closed position of said valve.

1 6. The lockout valve of claim 1 wherein said slide mechanism
2 includes a lockout aperture for preventing movement of said slide mechanism
3 within said valve slide channel.

1 7. The lockout valve of claim 1 wherein said slide mechanism
2 detent slot is centrally positioned between said upper end and said lower end,
3 and adjacent a side edge, of said slide mechanism.

1 8. The lockout valve of claim 1 wherein an upper end of said back
2 side of said slide mechanism includes a longitudinally extending exhaust slot
3 having a predetermined length, width and depth that is adjacent a vent
4 passageway in said valve housing when said slide mechanism is in a closed
5 position.

1 9. The lockout valve of claim 1 wherein said detent ball slidingly
2 travels from a lower end of said detent slot to an upper end of said detent slot as
3 said slide mechanism slides through said valve slide channel between the open
4 and closed position to stop fluid flow through the passageway.

1 10. The lockout valve of claim 1 wherein said detent ball slidingly
2 travels through said detent slot until reaching an edge of the detent slot as said
3 slide mechanism slides through said valve slide channel between either one of
4 the open position or the closed position and the intermediate position, to restrict
5 fluid flow through the passageway.

1 11. The lockout valve of claim 1 wherein said valve body includes
2 two housing members joined together using a fastening means.

1 12. A lockout valve comprising:
2 a valve body having a housing with an inlet conduit at one end of a
3 central chamber and an outlet conduit at an other end of said central chamber,
4 such that said inlet conduit, central chamber and outlet conduit form a
5 continuous passageway, wherein said inlet conduit and said outlet conduit each
6 include a sealing means operatively disposed on an inner end respectively and
7 said inlet conduit and said outlet conduit each include a connecting means
8 disposed on an outer end respectively;

9 a valve slide channel within said housing and extending transversely
10 therethrough said housing between an upper opening in an upper end of said
11 housing and a lower opening in a lower end of said housing;

12 a slide mechanism slidably disposed in said valve slide channel to
13 operatively control fluid flow through said passageway between an open
14 position, an intermediate position and a closed position, wherein said slide
15 mechanism is generally planar and includes an upper end and a lower end each
16 having a radially extending flange and two side edges extending therebetween
17 said upper end and said lower end, and having a front side facing toward said
18 inlet conduit and a back side facing toward said outlet conduit, and a plurality
19 of flow apertures extending therethrough said slide mechanism and arranged in
20 a predetermined pattern to restrict flow through said passageway in an
21 intermediate position;

22 wherein said front side of said slide mechanism includes a detent slot
23 having a predetermined length, width and depth and said back side of said slide
24 mechanism includes a longitudinally extending override slot having an upper
25 portion with a first predetermined length, width and depth positioned opposite
26 said detent slot to form a continuous opening through said slide mechanism,
27 and having a lower portion with a second predetermined length, width and
28 depth extending partially through said slide mechanism; and

29 a detent mechanism for overriding the intermediate position of said
30 slide mechanism including a detent override lever partially disposed in said
31 housing with a finger member extending from an edge of said detent override

32 lever within said housing, a spring member located in a recess in said housing
33 and a ball member located in the housing recess, such that the ball member is
34 positioned between the spring and the detent override lever, wherein said ball is
35 located in an upper portion of said detent slot when said slide mechanism is in
36 a closed position and travels through said detent slot concurrent with said slide
37 mechanism sliding through the valve slide channel until said ball reaches a
38 bottom edge of the detent slot, and actuation of said detent override lever
39 engages said override finger within the lower end of said override slot to push
40 said ball into the recessed area of the housing so that said slide mechanism
41 bypasses the intermediate position and said detent ball slidingly travels from a
42 lower end of said detent slot to an upper end of said detent slot as said slide
43 mechanism slides through said valve slide channel between the open position
44 and the closed position.

1 13. The lockout valve of claim 12 wherein said sealing means is an
2 o-ring disposed in an annular channel formed in an inside surface of said
3 housing about an inner end of said inlet conduit and an o-ring disposed in an
4 annular channel formed in an inside surface of said housing about an inner end
5 of said outlet conduit.

1 14. The lockout valve of claim 1 wherein said slide mechanism
2 includes indicia on a front side or a back side of said slide channel indicating
3 either one of an open position or a closed position of said valve.

1 15. The lockout valve of claim 12 wherein said slide mechanism
2 includes a lockout aperture for preventing movement of said slide mechanism
3 within said slide channel.

1 16. The lockout valve of claim 12 wherein said slide mechanism
2 detent slot is centrally positioned between said upper end and said lower end,
3 and adjacent a side edge, of said slide mechanism.

1 17. The lockout valve of claim 12 wherein an upper end of said
2 back side of said slide mechanism includes a longitudinally extending exhaust
3 slot having a predetermined length, width and depth that is adjacent a vent
4 passageway in said valve housing when said slide mechanism is in a closed
5 position.

1 18. The lockout valve of claim 12 wherein said detent ball slidingly
2 travels through said detent slot until reaching an edge of the detent slot as said
3 slide mechanism slides through said valve slide channel between either one of
4 the open position or the closed position and the intermediate position, to restrict
5 fluid flow through the passageway.

1 19. The lockout valve of claim 12 wherein said valve body includes
2 two housing members joined together using a fastening means.

1 20. A lockout valve comprising:
2 a valve body having a housing with an inlet conduit at one end of a
3 central chamber and an outlet conduit at an other end of said central chamber,
4 such that said inlet conduit, central chamber and outlet conduit form a
5 continuous passageway, wherein said inlet conduit and said outlet conduit each
6 include a sealing means operatively disposed on an inner end respectively and
7 said inlet conduit and said outlet conduit each include a connecting means
8 disposed on an outer end respectively;
9 a valve slide channel within said housing and extending transversely
10 therethrough said housing between an upper opening in an upper end of said
11 housing and a lower opening in a lower end of said housing;
12 a slide mechanism slidably disposed in said valve slide channel to
13 operatively control fluid flow through said passageway between an open
14 position, an intermediate position and a closed position, wherein said slide
15 mechanism is generally planar and includes an upper end and a lower end each
16 having a radially extending flange and two side edges extending therebetween
17 said upper end and said lower end, and having a front side facing toward said
18 inlet conduit and a back side facing toward said outlet conduit and a plurality of
19 flow apertures extending therethrough said slide mechanism and arranged in a
20 predetermined pattern to restrict flow through said passageway in an
21 intermediate position, and a lockout aperture for preventing movement of said
22 slide mechanism within said valve slide channel;

23 indicia on a front side or a back side of said slide mechanism indicating
24 either one of an open position or a closed position of the valve;

25 wherein said front side of said slide mechanism includes a detent slot
26 having a predetermined length, width and depth and said back side of said slide
27 mechanism includes a longitudinally extending override slot having an upper
28 portion with a first predetermined length, width and depth positioned opposite
29 said detent slot to form a continuous opening through said slide mechanism,
30 and having a lower portion with a second predetermined length, width and
31 depth extending partially through said slide mechanism; and

32 a detent mechanism for overriding the intermediate position of said
33 slide mechanism including a detent override lever partially disposed in said
34 housing with a finger member extending from an edge of said detent override
35 lever within said housing, a spring member located in a recess in said housing
36 and a ball member located in the housing recess, such that the ball member is
37 positioned between the spring and the detent override finger, wherein said ball
38 is located in an upper portion of said detent slot when said slide mechanism is
39 in a closed position and travels through said detent slot concurrent with said
40 slide mechanism sliding through the valve slide channel until said ball reaches
41 a bottom edge of the detent slot, and actuation of said detent override lever
42 engages said override finger within the lower end of said override slot to push
43 said ball into the recessed area of the housing so that said slide mechanism
44 bypasses the intermediate position and said detent ball slidingly travels from a
45 lower end of said detent slot to an upper end of said detent slot as said slide

46 mechanism slides through said valve slide channel between the open position
47 and the closed position to stop fluid flow through the passageway and said
48 detent ball slidingly travels through said detent slot until reaching an edge of
49 the detent slot as said slide mechanism slides through said valve slide channel
50 between either one of the open position or the closed position and the
51 intermediate position, to restrict fluid flow through the passageway.

1 21. The lockout valve of claim 20 wherein said sealing means is an
2 o-ring disposed in an annular channel formed in an inside surface of said
3 housing about an inner end of said inlet conduit and an o-ring disposed in an
4 annular channel formed in an inside surface of said housing about an inner end
5 of said outlet conduit.

1 22. The lockout valve of claim 21 wherein said slide mechanism
2 detent slot is centrally positioned between said upper end and said lower end,
3 and adjacent a side edge, of said slide mechanism.

1 23. The lockout valve of claim 21 wherein an upper end of said
2 back side of said slide mechanism includes a longitudinally extending exhaust
3 slot having a predetermined length, width and depth that is adjacent a vent
4 passageway in said valve housing when said slide mechanism is in a closed
5 position.

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- 1 24. The lockout valve of claim 21 wherein said valve body includes
- 2 two housing members joined together using a fastening means.